

AMENDMENTS TO THE CLAIMS

1-29. (Cancelled)

30. (Currently Amended) A method for treating a neural function in a brain of a patient, the method comprising:

during at least one therapy session, applying electrical stimulation to a cortical stimulation site and simultaneously having the patient engage in a behavioral therapy, wherein applying electrical stimulation to the stimulation site includes applying electrical stimulation to the stimulation site at a level below a threshold level of neurons at the stimulation site; and

discontinuing the electrical stimulation delivered to the cortical stimulation site after expiration of a therapy period that includes the at least one therapy session.

31. (Currently Amended) The method of claim 30 wherein discontinuing the electrical stimulation includes discontinuing ~~the further~~ electrical stimulation after the patient achieves a predetermined level of functional recovery that is generally sustained in the absence of electrical stimulation.

32. (Previously Presented) The method of claim 30, further comprising determining a length of the therapy period based on an expected time to recover, develop, or recover and develop a functional ability corresponding to the neural function.

33. (Previously Presented) The method of claim 30, further comprising identifying the stimulation site in, on, or in and on the brain of the patient.

34. (Previously Presented) The method of claim 30, further comprising implanting an electrode at least proximate to the stimulation site, and wherein applying

electrical stimulation includes applying electrical stimulation by transmitting electrical signals from the electrode.

35. (Previously Presented) The method of claim 30 wherein having the patient engage in a behavioral therapy comprises having the patient engage in at least one of a physical therapy, a cognitive therapy, an activity of daily living, a volitional use of an affected body part, a speech therapy, a visual task, a reading task, a memory task, a comprehension task and an attention task.

36. (Previously Presented) The method of claim 30, further comprising preventing the electrical stimulation from being delivered to the stimulation site after expiration of the therapy period.

37. (Previously Presented) The method of claim 30, further comprising selecting the behavioral therapy to include a physical therapy.

38. (Previously Presented) The method of claim 30, further comprising selecting the behavioral therapy to include a cognitive therapy.

39. (Previously Presented) The method of claim 30, further comprising selecting the behavioral therapy to include activities of daily living.

40. (Previously Presented) The method of claim 30, further comprising selecting the behavioral therapy to include a volitional use at an affected body part.

41. (Previously Presented) The method of claim 30, further comprising selecting the behavioral therapy to include a visual task.

42. (Previously Presented) The method of claim 30, further comprising selecting the behavioral therapy to include a reading task.

43. (Previously Presented) The method of claim 30, further comprising selecting the behavioral therapy to include a comprehension task.

44. (Previously Presented) The method of claim 30, further comprising selecting the behavioral therapy to include an attention task.

45. (Canceled)

46. (Previously Presented) A method for treating a neural function in a brain of a patient, the method comprising:

during at least one therapy session, applying electrical stimulation to a stimulation site at a level below a threshold level of neurons at the stimulation site, and simultaneously having the patient engage in a behavioral therapy; and discontinuing the electrical stimulation delivered to the stimulation site after expiration of a therapy period that includes the at least one therapy session, wherein discontinuing the electrical stimulation includes discontinuing the electrical stimulation after the patient achieves a predetermined level of functional recovery.

47. (New) The method of claim 36, further comprising implanting a pulse generator in the patient, implanting an electrode at the cortex, electrically coupling the electrode to the pulse generator, and wherein preventing the electrical stimulation from being delivered to the stimulation site after expiration of the therapy period comprises discontinuing electrical pulses from the pulse generator to the electrode for a period during which the patient retains functional recovery gained during the therapy session.

48. (New) The method of claim 30 wherein having the patient engage in a behavioral therapy comprises the patient intentionally trying to use a body part in a manner that reinforces the neural function.

49. (New) The method of claim 48 wherein intentionally using a body part in a manner that reinforces the neural function comprises the patient intentionally moving a body part associated with the neural function.

50. (New) The method of claim 49 wherein the patient has had a stroke affecting a hand, arm or leg of the patient, and wherein intentionally moving a body part associated with the neural function comprises the patient intentionally moving at the affected hand, arm or leg.

51. (New) The method of claim 49 wherein the patient has had a stroke affecting speech, and wherein intentionally moving a body part associated with the neural function comprises the patient intentionally speaking.